CLAIMS

1. A heat exchange element comprising a formable laminate of a metal layer and a heat-seal layer, the laminate being sealed under heat and pressure to itself or to another similar laminate to form a flow channel for a heat exchange medium.
2. The heat exchange element according to claim 1 wherein the metal layer comprises soft annealed aluminium.
3. The heat exchange element according to any preceding claim, wherein the metal layer has a thickness of between 25 microns and 120 microns, preferably around 70 microns.
4. The heat exchange element according to any preceding claim, wherein the heat-seal layer is substantially coextensive with the metal layer.
5. The heat exchange element according to any preceding claim, wherein the heat-seal layer is provided on both surfaces of the metal layer.
6. The heat exchange element according to any preceding claim, wherein the laminate further comprises a water-retaining layer.
7. The heat exchange element according to any preceding claim, wherein the laminate is formed into a convoluted shape having an increased surface area.
8. The heat exchange element according to any preceding claim, wherein the laminate is generally corrugated to form a plurality of fins.
9. The heat exchange element according to any preceding claim, wherein the laminate is provided on one or both surfaces with a plurality of fins connected under heat and pressure in heat conducting relationship with the laminate to increase the effective surface area thereof.
10. The heat exchange element according to claim 9, wherein the fins are formed of a laminate as defined in any of claims 1 to 8.
11. The heat exchange element according to any preceding claim, wherein the flow channel comprises an elongate flat tube of generally rectangular cross-section.
12. The heat exchange element according to claim 11, wherein the tube comprises a first laminate portion having lateral edges, the edges being folded together and sealed to form an elongate seam.

13. The heat exchange element according to claim 11, wherein the tube comprises first and second laminate portions each having lateral edges, the first and second laminate portions being sealed to one another along their respective edges.

14. A method of manufacturing a heat exchanger, comprising:
providing a plastically deformable first metal laminate;
providing a plastically deformable second laminate;
plastically forming the first laminate into a generally corrugated shape having a series of troughs;
connecting the first laminate to the second laminate at the series of troughs to form a heat-transmitting wall with heat-conducting fins; and
sealing the second laminate to itself or to another similar laminate to form a flow channel.

15. The method according to claim 14, wherein at least the first or the second laminate comprises a heat-sealable layer and the first and second laminates are connected together by heat sealing at a first temperature.

16. The method according to claim 15, wherein the second laminate comprises a heat-sealable layer and the second laminate is sealed to itself or to another similar laminate by heat sealing at a second temperature lower than the first temperature.

17. The method according to any of claims 14 to 16, wherein the first laminate comprises first and second surfaces, the first surface being provided with a water retaining layer and the second surface being connected to the second laminate.

18. The method according to any of claims 14 to 17, further comprising the step of dividing the first laminate into sections prior to connecting it to the second laminate.

19. The method according to claim 18, wherein the second laminate comprises first and second surfaces and sections of the first laminate are connected to both of the first and second surfaces of the second laminate.

20. The method according to any of claims 14 to 19, further comprising the step of forming louvres in the first laminate prior to connecting it to the second laminate.